

**CROP WEATHER SITUATION
METEOROLOGICAL DATA OF
INDIAN INSTITUTE OF HORTICULTURAL RESEARCH
HESSARAGHATTA, BANGALORE – 560 089**

Period: 1st to 15th April, 2016

Latitude : 13⁰7¹ N

Longitude : 72⁰29¹E

Altitude : 890 M

| Fortnight | Temperature (°C) | | Relative Humidity (%) | | Evaporation (mm) | Wind speed (km/h) | Total Rainfall (mm) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|---------------------|
| | Average Max. | Average Min. | Average At 7.30AM | Average at 1.30 PM | | | |
| April 1 st to 15 th , 2016 | 37.3 (32.3) | 24.3 (19.8) | 73.4 (67.8) | 43.9 (41.6) | 6.2 (6.5) | 3.2 (4.9) | 0.0 (7.5) |

* Figures in the parentheses indicate the average values during the corresponding period for the previous 5 years

Fortnight from 1st to 15th April, 2016

During the first fortnight of the month i.e., from April 1st to 15th, 2016, the average maximum and the average minimum temperatures were higher by 0.8⁰C and 1.4⁰C respectively, as compared to the previous fortnight. The average maximum temperature was lower by 0.5⁰C while the average minimum temperature was higher by 1.8⁰C, as compared to the average values of the corresponding period for the previous five years. The percent relative humidity during morning and afternoon hours were higher by 7.1% and 2.1% respectively, as compared to the previous fortnight. There was no rainfall during the fortnight.

Crop weather situation

- ❖ The maximum and minimum temperatures are more by 5 to 6⁰C than the average daily temperatures of last 5 years. Because of high temperatures crops are getting affected in terms of vegetative growth, fruit production and quality in vegetables as well as fruit crops. Nutrient uptake is also affected due to high temperatures. Vegetable special may be sprayed on vegetable crops. Similarly for banana, Banana special may be sprayed. Frequent protective irrigations are necessary for vegetables.

Incidence of pests and diseases

Plant protection measures – prevailing weather conditions

Under the prevailing weather situation, the following pests are expected under Bangalore conditions. Various pest management options are also mentioned below.

Mango stone weevil management: Wherever fruits reached lemon size (2-4 cm diameter), a spray of acephate @ 1.5g/L followed after two weeks by deltamethrin @ 1ml/L. This will also take care of thrips incidence on fruits which is becoming serious in some parts with rising temperatures.

Fruit fly Management:

- ❖ Collect and destroy fallen fruits.

- ❖ In orchards where fruit set occurred early and they attained full size, erect methyl eugenol based fruit fly traps @ 6/acre.

Leaf miner on tomato

- ❖ Incidence of leaf miner is observed on tomato. For its management spray triazophos @ 1.5 ml/l

Mites on tomato and Ridge gourd

- ❖ Rising temperatures favour mite multiplication. For the management of mites on tomato and ridge gourd , spray spiromesifen 22.9SC @ 0.5ml/L or fenazaquin 1.5ml/L at fortnight interval.

Serpentine leaf miner on cucurbits

- ❖ Spray neem soap @ 10g/L mixed with cypermethrin (1ml/L)

Whiteflies on tomato:

- ❖ Incidence of whiteflies is noticed on tomato. For their management spray imidacloprid @ 0.5 ml/l or Spiromesifen 22.9SC @ 0.5ml/L. Do not repeat the same chemical.

Brinjal shoot and fruit borer

- ❖ For the management of brinjal shoot and fruit borer, spray rynaxypyr @ 0.3 ml/l.

Mealy bugs on grapes:

- ❖ Incidence of mealybugs may increase during this period. Spray dichlorvos 76 EC @ 2 ml/l and repeat the spray after 2 weeks. Waiting period of 15 days is to be followed for harvest of the grapes.

Thrips on rose

- ❖ For the management of thrips on rose, spray acephate 1g/l or imidacloprid @ 0.5 ml/l.

Mites on Rose

- ❖ During the period, severe incidence of mites is observed on roses grown under polyhouse conditions. Spray abamectin @ 0.5 ml/l for their management.

Diseases

Fruit Crops

- ❖ **Mango:** Anthracnose (*C.gloeosporioides*) and stem end rot (*L. theobromae*) are expected to infect mango fruits during ripening. Pre-harvest sprays with Carbendazim (0.1%) or Thiophanate methyl (0.1%) or Azoxystrobin (0.1%) should be applied keeping in view of time of harvest (PHI).
- ❖ **Pomegranate:** Application of COC (0.2%) + Streptocycline (300 ppm) along with the sticker @ 0.5ml/l should be applied immediately with even little showers. Due to no rains the disease is not spreading, however sparying needs to done where ever rainfall occur.
- ❖ **Papaya:** Infection of Anthracnose (*C. gloeosporioides*), Black spot (*Asperisporium caricae*) may further increase. Application of Chlorothalonil (0.2%) Carbendazim (0.1%)/ Thiophanate methyl (0.1%)/ Hexaconazole (0.1%) along with the sticker @ 0.5ml/l with good coverage of the lower surface of the foliage is recommended.

Ornamentals

- ❖ Leaf spots in rose and gerbera. Spraying trifloxistrobin at 0.1% along with sticker 0.5ml/l will help in reducing powdery mildew spread under protected cultivation. If not spread extensively tebuconazole or hexaconazole at 0.1% with sticker also will help.

Virus diseases

- ❖ Change in weather especially low humidity with increase in temperature favours sucking pests which are vectors of many virus diseases. Dry spells followed by intermittent rains and high temperature favour vector populations. Seed treatment with imidacloprid or spray of acephate (0.2%) will be effective in controlling vector population in vegetables. For perennial crops acephate spray at 0.2% will reduce vectors